RFID-BASED PROCESS MANAGEMENT SYSTEM

SUCCESS STORY OVERVIEW

BUSINESS NEEDS: Process Control and Inventory Control
CLIENT: Digital Imaging Equipment Business/Camera Business / Optical Measuring & Inspection Instrument Business Manufacturer
SOLUTION: RFID-based Process Management System

REASON FOR CHOOSING SOLUTION:
- Hands-Off Data Capture
  - No need for manual barcode scanning and barcode label printing
  - Labour savings
- Tags are re-usable
- Batch processing (read several tags at the same time)
- Production Process Visibility
  - From Supplier Management to entire Process Management
  - Real-time tracking
RFID-BASED PROCESS MANAGEMENT SYSTEM

From Sales Enquiry, To Negotiation and Finally Confirmed Order

- **February 2005**
  - Receives Enquiry from Client
    - SATO received enquiry from client regarding label usage to enable them to track & trace components installation along the supply-chain

- **April 2005**
  - Receives Order
    - Client chooses SATO’s solution and makes an order of

- **July**
  - Makes Proposal
    - Based on Direct Contact with End User
    - Cross-selling
    - Differentiating SATO’s proposal from the competitors’

- **September**
  - System being installed in Thailand. Production to start in October
    - STC’s service & maintenance support for all printers and scanners used was part of SATO’s value-added solution
OPERATIONS - Produce Label for Visual Checking to be Applied on Tag

I – Lay IC Tag on R/W (Reader/Writer)

II – Print UID on label

A unique fixed number is carried by every UID IC tag

IC Tag Chip type: I CODE SLI
Processed: Nitta Industry

Reader /Writer URWI-001
Manufacturer: FEC Inc.
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OPERATIONS - Apply Label (with printed UID) for visual checking onto IC Tag

IC Tag Chip type: I CODE SLI
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OPERATIONS - Apply Label (with printed UID) for Visual Checking onto IC Tag

I – Attach IC Tag to camera.

II – Production History Data written to IC tag

Production Process Information is recorded. History data about installation of important components written to IC tag.

III – Reader/Writer reads from IC tag and sends to Host, who sends to Printer and Labels are printed.

The Reader/Writer reads the tag and transmits it to the host computer. The host computer sends the print data to the printer, which prints micro QR code labels. Traceability information collected (in case repairs, servicing or support of any kind is required afterward).
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OPERATIONS - Facilitates Shipment stock taking and Components Check

Benefits:
Check that important components have been installed.
Accurate stock-taking.

Long range RFID reader/writer EFG-400-01
Manufacturer: WELCAT

* Note: Tag is removed after it is shipped out and it is recycled.
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SUCCESS FACTORS

1. Selection of Tag Inlets
The inlets manufactured by Nitta Industry are made of resin and are soft and flexible. This prevents damage that can be caused to the components inside the camera.

2. Service and Maintenance Support
SATO’s maintenance and service support for all the printers and scanners worldwide differentiated SATO’s proposal from the rest.

3. Label Processing
SR412 has proved that it can dispense reliable and QR code labels, 6x6 mm, that can fit onto the IC tag.
   Note: SR is the Japanese version of GT412e